

Appl. No. 10/009,157
Suppl. Amdt. dated October 4, 2005
Reply to Office Action of July 29, 2005

Amendments to the Claims:

This listing will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) A method of controlling a blasting network including an assembly of detonators, said blasting network being in a blasting system which further includes a control unit, a communication link for transmitting messages between the control unit and the assembly of detonators, said messages consisting of safe and unsafe messages, and a communication firewall comprising a locking device for placing the communication link in a control mode or an operational mode, an electronic filter and two communication interfaces adapted to allow communication to take place with the communication link, said method including the steps of designating at least one message as unsafe, placing the communication link in said control mode, in which the communication link is monitored for the designated at least one unsafe message, in said control mode preventing the designated at least one unsafe message from reaching the assembly of detonators, and placing the communication link in said operational mode, in which the designated at least one unsafe message is allowed to reach the assembly of detonators, and wherein in both the control mode and the operational mode the safe messages are permitted to be transmitted to the assembly of detonators via the communication link.
2. (previously presented) A method according to claim 1 wherein in the control mode of the communication link the or each unsafe message is prevented from reaching the assembly of detonators by preventing the onward transmission of the unsafe message.
3. (cancelled)
4. (cancelled)

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- 3 5. (previously presented) The method of claim 1 which includes the step of designating at least two unsafe messages.
6. (previously presented) A method of controlling a blasting network including an assembly of detonators, said blasting network being in a blasting system which further includes a control unit, a communication link for transmitting messages between the control unit and the assembly of detonators, said messages consisting of safe and unsafe messages, and a communication firewall comprising a locking device for placing the communication link in a control mode or an operational mode, an electronic filter and two communication interfaces adapted to allow communication to take place with the communication link, said method including the steps of designating two messages as unsafe, placing the communication link in said control mode, in which the communication link is monitored for the designated unsafe messages, in said control mode preventing the designated unsafe messages from reaching the assembly of detonators, and placing the communication link in said operational mode, in which the designated unsafe messages are allowed to reach the assembly of detonators, wherein in both the control mode and the operational mode the safe messages are permitted to be transmitted to the assembly of detonators via the communication link, and wherein the two designated unsafe messages are respectively equated with arm and fire commands.
7. (previously presented) A system for controlling a blasting network including an assembly of detonators, said system including a control unit, a communication link for transmitting messages between the control unit and the assembly of detonators, said messages consisting of safe messages and at least one designated unsafe message, and a communication firewall comprising a locking device for placing the communication link in a control mode or an operational mode, an electronic filter and two communication interfaces adapted to allow communication to take place with the communication link, wherein the communication link in its control mode prevents the at least one designated unsafe message from being transmitted to the assembly of

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detonators and in its operational mode permits the at least one designated unsafe message to be transmitted to the assembly of detonators, and wherein in both its control mode and its operational mode the communication link permits the safe messages to be transmitted to the assembly of detonators via the communication link.

8. (previously presented) A system for controlling a blasting network according to claim 7 wherein in the control mode of the communication link the onward transmission of the at least one designated unsafe message is prevented.

9. (cancelled)

10. (cancelled)

9 11. (previously presented) A system for controlling a blasting network according to claim 7 wherein the control unit is capable of generating legal unsafe messages, which are transmitted via the communication link in its operational mode.

12. (cancelled)

10. 13. (currently amended) A system for controlling a blasting network according to claim 7 wherein the locking device is a switch.

11 14. (previously presented) A blasting system including a system for controlling a blasting network according to claim 7 connected to a blasting network including an assembly of detonators.

12 15. (previously presented) A blasting system according to claim ¹¹14 wherein the control unit of the system for controlling a blasting network is capable of generating legal unsafe messages, which are transmitted via the communication link in its operational mode.

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16. (cancelled)

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17.

(previously presented) A blasting system according to claim 14 wherein the locking device is a switch.

18. (cancelled)

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19.

(previously presented) A method of controlling a blasting network including an assembly of detonators, said blasting network being in a blasting system which further includes a control unit and a communication link for transmitting messages between the control unit, the assembly of detonators, said messages consisting of safe and unsafe messages, and a communication firewall comprising a locking device for placing the communication link in a control mode or an operational mode, an electronic filter and two communication interfaces adapted to allow communication to take place with the communication link, said method including the steps of designating at least one message as unsafe, placing the communication link in said control mode, in which the communication link is monitored for the designated at least one unsafe message, in said control mode preventing the designated at least one unsafe message from reaching the assembly of detonators, and placing the communication link in said operational mode, in which the designated at least one unsafe message is allowed to reach the assembly of detonators, and wherein in both the control mode and the operational mode the safe messages are permitted to be transmitted to the assembly of detonators via the communication link, wherein the control unit is connected to an Internet or Intranet facility or connection arrangement.

20. (cancelled)

1721.

(previously presented) A system for controlling a blasting network including an assembly of detonators, said system including a control unit, the control unit being connected to an Internet or Intranet facility or connection arrangement,

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a communication link for transmitting messages between the control unit and the assembly of detonators, said messages consisting of safe messages and at least one designated unsafe message, and a communication firewall comprising a locking device for placing the communication link in a control mode or an operational mode, an electronic filter and two communication interfaces adapted to allow communication to take place with the communication link, wherein the communication link in its control mode prevents the at least one designated unsafe message from being transmitted to the assembly of detonators and in its operational mode permits the at least one designated unsafe message to be transmitted to the assembly of detonators, and wherein in both its control mode and its operational mode the communication link permits the safe messages to be transmitted to the assembly of detonators via the communication link.

22. (cancelled)

¹⁸
~~23.~~ (previously presented) A blasting system including a system for controlling a blasting network according to claim ¹⁷~~21~~ connected to a blasting network including an assembly of detonators.

⁴
~~24.~~ (new) A method according to claim 1 wherein in the control mode of the communication link the or each unsafe message is prevented from reaching the assembly of detonators by scrambling the or each designated unsafe message so that it is no longer unsafe.

⁶
~~25.~~ (new) A method according to claim ⁴~~24~~ which includes, in the operational mode of the communication link, the steps of detecting a scrambled unsafe message, unscrambling the detected scrambled unsafe message, and transmitting the unscrambled unsafe message to the assembly of detonators.

¹⁴
~~26.~~ (new) A system for controlling a blasting network according to claim 7 wherein the at least one designated unsafe message, when detected, is scrambled.

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- 15
27. (new) A system for controlling a blasting network according to claim 26
wherein in the operational mode of the communication link the scrambled at
least one designated unsafe message is detected and unscrambled for
transmission of the unscrambled at least one designated unsafe message to
the assembly of detonators. 14